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COATS & BENNETT, PLLC
P O BOX 5
RALEIGH, NC 27602

EXAMINER
DEAN, RAYMOND S

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/040,542	DAMNJANOVIC ET AL.
	Examiner	Art Unit	
	Raymond S. Dean	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>16 February 2006</u>.

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1 - 85</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1 - 85</u> is/are rejected.

7) ☒ Claim(s) <u>16 and 70</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>03 March 2005</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicants' arguments, see Appeal Brief filed February 16, 2006 with respect to

the rejections of Claims 1 – 85 under 35 U.S.C. 103(a) and 102(e) have been fully

considered and are persuasive. Examiner has reconsidered Applicant's arguments

against examiner's assertions and has determined that current rejection of the pending

claims would not withstand the scrutiny of an appeal conference thus examiner is

reopening prosecution.

Claim Objections

2.   Claims 16 and 70 are objected to because of the following informalities: The

"second channel gain" is stated twice as opposed to a "first channel gain" and a "second

channel gain". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claim 82 recites the limitation "**the** reverse pilot channel" and "**the** reverse rate

control channel" in line 2. There is insufficient antecedent basis for this limitation in the

claim.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1, 5 – 10, 15, 23, 25, 57, 61 – 66, and 78 are rejected under 35 U.S.C.

102(e) as being anticipated by Tiedemann et al. (US 2005/0135320).

        Regarding Claim 1, Tiedemann teaches a method of controlling the transmit

power of a mobile terminal in a mobile communication system, comprising: varying a

first transmit power level of the mobile station on a first reverse link channel responsive

to power control commands from a serving base station (Sections: 0047 – 0048, 0098,

the power level of the R-FCH, for example, can be adjusted by the "OR-of-the-downs"

rule with the serving base station transmitting a down command and the non-serving

base stations transmitting an up command thus the transmit power level of the R-FCH

can be varied via the down power command transmitted from the serving base station);

and varying a second transmit power level of the mobile station on a second reverse

link channel responsive to power control commands from at least one non-serving base

station (Sections: 0047 – 0048, 0098, the power level of the R-SCH, for example, can

be adjusted by the "OR-of-the-downs" rule with a non-serving base station transmitting

a down command and the other base stations in the active set transmitting an up

command, thus the transmit power level of the R-SCH can be varied via the down

power command transmitted from the non-serving base station).

Regarding Claim 25, Tiedemann teaches a method of controlling the transmit

power of a mobile terminal by a base station in a mobile communication system,

comprising: determining whether the base station is a serving base station for forward

link communications (Section 0098, soft handoff is conducted thus there will be a

determination of which base station is the serving base station); power controlling a first

reverse link channel if the base station is the serving base station (Sections: 0047 –

0048, 0098, the power level of the R-FCH, for example, can be adjusted by the "OR-of-

the-downs" rule with the serving base station transmitting a down command and the

non-serving base stations transmitting an up command thus the transmit power level of

the R-FCH can be varied via the down power command transmitted from the serving

base station); power controlling a second reverse link channel if the base station is not

the serving base station (Sections: 0047 – 0048, 0098, the power level of the R-SCH,

for example, can be adjusted by the "OR-of-the-downs" rule with a non-serving base

station transmitting a down command and the other base stations in the active set

transmitting an up command, thus the transmit power level of the R-SCH can be varied

via the down power command transmitted from the non-serving base station).

Regarding Claim 57, Tiedemann teaches a mobile station comprising a receiver

to receive power control commands from a serving base station and at least one non-

serving base station (Section 0098), the serving and non-serving base stations forming

an active set for the mobile station power control logic to: vary a first transmit power level of the mobile station on a first reverse link channel responsive to power control commands from the serving base station (Sections: 0047 – 0048, 0098); vary a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from at least one non- serving base station (Sections: 0047 – 0048, 0098); and a transmitter to transmit signals on the first and second reverse link channels at the first and second transmit power levels respectively (Sections: 0047 – 0048, 0098).

Regarding Claim 78, Tiedemann teaches a base station for a wireless communication network, comprising: a receiver to receive signals from a mobile station on first and second reverse link channels at first and second received power levels respectively (Sections: 0047 – 0048, 0098) power control logic to: determine whether the base station is a serving base station for forward link communications (Section 0098, soft handoff is conducted thus there will be a determination of which base station is the serving base station); generate power control commands to power control a first reverse link channel if the base station is the serving base station (Sections: 0047 – 0048, 0098); generate power control commands to power control a second reverse link channel if the base station is a non-serving base station (Sections: 0047 – 0048, 0098); and a transmitter to transmit the power control commands to the mobile station (Sections: 0047 – 0048, 0098).

Regarding Claims 5, Tiedemann teaches all of the claimed limitations recited in Claim 1. Tiedemann further teaches receiving power control commands from one or

more non-serving base stations; and decreasing the second transmit power level if at

least one of the non-serving base stations commands the mobile station to decrease its

power level (Sections: 0047 – 0048, 0098).

Regarding Claims 6, Tiedemann teaches all of the claimed limitations recited in

Claims 5. Tiedemann further teaches increasing the second transmit power level if all

of the non-serving base stations command the mobile station to increase its power level

(Sections: 0047 – 0048, 0098).

Regarding Claim 7, Tiedemann teaches all of the claimed limitations recited in

Claim 5. Tiedemann further teaches varying a second transmit power level of the

mobile station on a second reverse link channel responsive to power control commands

from the serving base station (Sections: 0047 – 0048, 0098).

Regarding Claim 8, Tiedemann teaches all of the claimed limitations recited in

Claim 7. Tiedemann further teaches decreasing the transmit power level of the mobile

station if the serving base station command the mobile station to decrease its transmit

power (Sections: 0047 – 0048, 0098).

Regarding Claim 9, Tiedemann teaches all of the claimed limitations recited in

Claim 8. Tiedemann further teaches increasing the transmit power of the mobile station

on the second reverse link channel if the serving base station and each non-serving

base station commands the mobile station to increase its transmit power (Sections:

0047 – 0048, 0098).

Regarding Claims 10, 66, Tiedemann teaches all of the claimed limitations

recited in Claims 1, 57. Tiedemann further teaches computing a first channel gain of

one of the first and second reverse link channels relative to a third reverse link channel (Section 0049, once an allowable data rate is selected a corresponding channel gain with respect to the pilot power level is used to set the traffic channel power level).

Regarding Claim 15, Tiedemann teaches all of the claimed limitations recited in Claim 10. Tiedemann further teaches computing a second channel gain of one of the first and second reverse link channels relative to a third reverse link channel (Section 0049).

Regarding Claim 23, Tiedemann teaches all of the claimed limitations recited in Claim 1. Tiedemann further teaches wherein the first reverse link channel is a reverse pilot channel and the second reverse link channel is a reverse traffic channel (Sections: 0047 – 0048).

Regarding Claim 61, Tiedemann teaches all of the claimed limitations recited in Claim 57. Tiedemann further teaches wherein the power control logic decreases the second transmit power level if at least one of the non-serving base stations in the active set commands the mobile station to decrease its power level (Sections: 0047 – 0048, 0098).

Regarding Claim 62, Tiedemann teaches all of the claimed limitations recited in Claims 61. Tiedemann further teaches wherein the power control logic increases the second transmit power level if all of the non-serving base stations command the mobile station to increase its power level (Sections: 0047 – 0048, 0098).

Regarding Claim 63, Tiedemann teaches all of the claimed limitations recited in Claim 57. Tiedemann further teaches varying a second transmit power level of the

mobile station on a second reverse link channel responsive to power control commands from all of the base stations in the active set including the serving base station (Sections: 0047 – 0048, 0098).

Regarding Claim 64, Tiedemann teaches all of the claimed limitations recited in Claim 57. Tiedemann further teaches wherein the power control logic decreases the second transmit power level if the serving base station or any one of the non-serving base stations commands the mobile station to decrease its transmit power on the reverse traffic channel (Sections: 0047 – 0048, 0098).

Regarding Claim 65, Tiedemann teaches all of the claimed limitations recited in Claim 57. Tiedemann further teaches wherein the power control logic increases the second transmit power level if all of the base stations in its active set command the mobile station to increase its transmit power on the reverse traffic channel (Sections: 0047 – 0048, 0098).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 2 – 4, 19 – 22, 24, 26 – 30, 32 – 40, 47, 53 – 56, 58 – 60, 74 – 77, and 79 – 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedemann et al. (US 2005/0135320) in view of Hsu et al. (US 6,901,046).

Regarding Claim 2, 26, 58, 79, Tiedemann teaches all of the claimed limitations recited in Claims 1, 25, 57, and 78. Tiedemann further teaches wherein the second reverse link channel is a reverse traffic channel (Section 0042).

Tiedemann does not teach wherein the first reverse link channel is a reverse rate control channel.

Hsu teaches a reverse rate control channel (Column 1 lines 43 – 49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Tiedemann with the R-CQICH of Hsu for the purpose of obtaining a particular quality of service (QoS) as taught by Hsu.

Regarding Claim 32, Tiedemann teaches a method of controlling the transmit power of a mobile terminal in a wireless communication system during a soft handoff wherein the active set for the mobile station includes two or more base stations (Section 0098, soft handoff is conducted thus there an active set of two or more base stations), the method comprising: selecting one of the base stations in the active set as the serving base station for forward link communications with the mobile terminal receiving power control commands from the serving base station and at least one non-serving base station in the active set (Sections: 0047 – 0048, 0098); varying a first transmit power level of the mobile station on a reverse traffic channel responsive to power control commands from a serving base station (Sections: 0047 – 0048, 0098, the power

level of the R-FCH, for example, can be adjusted by the "OR-of-the-downs" rule with the

serving base station transmitting a down command and the non-serving base stations

transmitting an up command thus the transmit power level of the R-FCH can be varied

via the down power command transmitted from the serving base station); and varying a

second transmit power level of the mobile station on a reverse traffic channel

responsive to power control commands from at least one non-serving base station

(Sections: 0047 – 0048, 0098, the power level of the R-SCH, for example, can be

adjusted by the "OR-of-the-downs" rule with a non-serving base station transmitting a

down command and the other base stations in the active set transmitting an up

command, thus the transmit power level of the R-SCH can be varied via the down

power command transmitted from the non-serving base station).

Tiedemann does not teach a reverse rate control channel.

Hsu teaches a reverse rate control channel (Column 1 lines 43 – 49).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the system of Tiedemann with the R-CQICH of Hsu for

the purpose of obtaining a particular quality of service (QoS) as taught by Hsu.

Regarding Claims 3, 27, 33, 80, Tiedemann in view of Hsu teaches all of the

claimed limitations recited in Claims 2, 26, 32, and 79. Tiedemann further wherein the

gain of the reverse channel is fixed relative to a reverse pilot channel (Section 0049)

and wherein the transmit power level of the mobile station on the reverse pilot channel

is varied responsive to the power control commands from the serving base station

(Sections: 0047 – 0048, 0098, the power level of the R-PICH, for example, can be

adjusted by the "OR-of-the-downs" rule with the serving base station transmitting a down command and the non-serving base stations transmitting an up command thus the transmit power level of the R-PICH can be varied via the down power command transmitted from the serving base station).

Regarding Claims 4, 29, 34, 83, Tiedemann in view of Hsu teaches all of the claimed limitations recited in Claims 2, 26, 32, and 79. Tiedemann further wherein the gain of the reverse traffic channel is fixed relative to a reverse pilot channel (Section 0049) and wherein the transmit power level of the mobile station on the reverse pilot channel is varied responsive to the power control commands from the at least one non-serving base station (Sections: 0047 – 0048, 0098, the power level of the R-PICH, for example, can be adjusted by the "OR-of-the-downs" rule with a non-serving base station transmitting a down command and the other base stations in the active set transmitting an up command, thus the transmit power level of the R-PICH can be varied via the down power command transmitted from the non-serving base station).

Regarding Claims 19, 53, 74, Tiedemann in view of Hsu teaches all of the claimed limitations recited in Claims 2, 32, 58. Tiedemann further teaches a primary pilot channel and at least one secondary pilot channel (Section 0098, the mobile is in soft handoff, which means that there will be a plurality of pilot channels), and wherein the gain of the reverse traffic channel is fixed relative to the primary pilot channel (Section 0049).

Regarding Claims 20, 54, 75, Tiedemann in view of Hsu teaches all of the claimed limitations recited in Claims 19, 53, 74. Tiedemann further teaches wherein the

gain of the reverse channel is fixed relative to the sum of the transmit power on all

reverse link pilot channels (Sections: 0049, 0098).

Regarding Claims 21, 55, 76, Tiedemann in view of Hsu teaches all of the

claimed limitations recited in Claims 20, 54, 75. Tiedemann further teaches wherein the

mobile station varies its transmit power on the primary pilot channel responsive to

power control commands form at least one non-serving base station (Sections: 0047 –

0048, 0098).

Regarding Claims 22, 56, 77, Tiedemann in view of Hsu teaches all of the

claimed limitations recited in Claims 21, 55, 76. Tiedemann further teaches wherein the

mobile station varies its transmit power on at least one secondary pilot channel

responsive to power control commands from the serving base station such that the total

transmit power on all reverse link pilot channels remains within predetermined limits

(Section 0098, the "OR-of-the-downs" rule ensures that the transmit power on all

reverse link pilot channels remains within predetermined limits).

Regarding Claim 24, Tiedemann teaches all of the claimed limitations recited in

Claims 1. Tiedemann further teaches wherein the second reverse link channel is a

reverse pilot channel (Section 0047).

Tiedemann does not teach wherein the first reverse link channel is a reverse rate

control channel.

Hsu teaches a reverse rate control channel (Column 1 lines 43 – 49).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the system of Tiedemann with the R-CQICH of Hsu for

the purpose of obtaining a particular quality of service (QoS) as taught by Hsu.

Regarding Claim 28, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 27. Tiedemann further teaches power controlling the reverse

pilot channel if the base station determines that it is the serving base station (Sections:

0047 – 0048, 0098).

Regarding Claim 30, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 29. Tiedemann further teaches power controlling the reverse

pilot channel if the base station determines that it is a non-serving base station

(Sections: 0047 – 0048, 0098).

Regarding Claim 35, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 32. Tiedemann further teaches receiving power control

commands from one or more non-serving base stations; and decreasing the second

transmit power level if at least one of the non-serving base stations commands the

mobile station to decrease its power level (Sections: 0047 – 0048, 0098).

Regarding Claim 36, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 35. Tiedemann further teaches increasing the second

transmit power level if all of the non-serving base stations command the mobile station

to increase its power level (Sections: 0047 – 0048, 0098).

Regarding Claim 37, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 36. Tiedemann further teaches varying the transmit power

level of the mobile station on the reverse traffic channel responsive to power control

commands from the serving base station (Sections: 0047 – 0048, 0098).

Regarding Claim 38, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 37. Tiedemann further teaches decreasing the transmit

power level of the mobile station on the reverse traffic channel if the serving base

station commands the mobile station to decrease its transmit power (Sections: 0047 –

0048, 0098).

Regarding Claim 39, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 38. Tiedemann further teaches increasing the transmit

power of the mobile station on the reverse traffic channel if the serving base station and

each non-serving base station commands the mobile station to increase its transmit

power (Sections: 0047 – 0048, 0098).

Regarding Claim 40, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 33. Tiedemann further teaches computing a first channel

gain of one of the reverse traffic channel relative to the reverse pilot channel (Section

0049, once an allowable data rate is selected a corresponding channel gain with

respect to the pilot power level is used to set the traffic channel power level).

Regarding Claim 47, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 34. Tiedemann further teaches computing a gain ratio of a

reverse channel to the reverse pilot channel (Section 0049).

Regarding Claim 59, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 58. Tiedemann further wherein the gain of the reverse

channel is fixed relative to a reverse pilot channel (Section 0049) and wherein the

power control logic varies transmit power level of the mobile station on the reverse pilot

channel responsive to the power control commands from the serving base station

(Sections: 0047 – 0048, 0098, the power level of the R-PICH, for example, can be

adjusted by the "OR-of-the-downs" rule with the serving base station transmitting a

down command and the non-serving base stations transmitting an up command thus

the transmit power level of the R-PICH can be varied via the down power command

transmitted from the serving base station).

Regarding Claim 60, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 58. Tiedemann further wherein the gain of the reverse traffic

channel is fixed relative to a reverse pilot channel (Section 0049) and wherein the

control logic varies the transmit power level of the mobile station on the reverse pilot

channel responsive to the power control commands from the at least one non-serving

base station (Sections: 0047 – 0048, 0098, the power level of the R-PICH, for example,

can be adjusted by the "OR-of-the-downs" rule with a non-serving base station

transmitting a down command and the other base stations in the active set transmitting

an up command, thus the transmit power level of the R-PICH can be varied via the

down power command transmitted from the non-serving base station).

Regarding Claim 81, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claims 80. Tiedemann further teaches power controlling the

reverse pilot channel if the base station determines that it is the serving base station

(Sections: 0047 – 0048, 0098).

Regarding Claim 82, Tiedemann in view of Hsu teaches all of the claimed limitations recited in Claim 80. Tiedemann further teaches generating a first power control command to power control the reverse pilot channel and a second power control command to power control a second reverse channel if the base determines that it is the serving base station (Sections: 0047 – 0048, 0098). **PLEASE NOTE**: Examiner has made the assumption that Applicants mean for Claim 82 depend on Claim 80.

Regarding Claim 84, Tiedemann in view of Hsu teaches all of the claimed limitations recited in Claim 83. Tiedemann further teaches generating a first power control command to power control the reverse pilot channel if the base determines that it is a non-serving base station (Sections: 0047 – 0048, 0098).

9.   Claims 11 – 14, 16 – 17, and 67 – 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedemann et al. (US 2005/0135320) in view of Corke et al. (US 6,728,218).

Regarding Claims 11, 67, Tiedemann teaches all of the claimed limitations recited in Claims 10, 66. Tiedemann does not teach determining if the first channel gain meets a predetermined criterion; and varying the transmit power level of the mobile station on the first reverse link channel if the first channel gain meets the predetermined criterion.

Corke teaches determining if a channel gain meets a predetermined criterion; and varying the transmit power level on the channel if the channel gain meets the predetermined criterion (Column 4 lines 1 – 3, lines 6 – 19).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the system of Tiedemann with the determination method

of Corke for the purpose of providing an increase in system capacity as taught by

Corke.

Regarding Claims 12, 68 Tiedemann in view of Corke teaches all of the claimed

limitations recited in Claims 11, 67. Tiedemann further teaches varying the first transmit

power level of the mobile station on the first reverse link channel responsive to power

control commands from at least one non-serving base station (Sections: 0047 – 0049,

0098). Corke further teaches varying the transmit power level if the channel gain does

not meet the predetermined criterion (Column 4 lines 1 – 3, lines 6 – 19).

Regarding Claims 13, 71, Tiedemann teaches all of the claimed limitations

recited in Claims 10, 66. Tiedemann does not teach determining if the first channel gain

meets a predetermined criterion; and varying the transmit power level of the mobile

station on the second reverse link channel if the first channel gain meets the

predetermined criterion.

Corke teaches determining if a channel gain meets a predetermined criterion;

and varying the transmit power level on the channel if the channel gain meets the

predetermined criterion (Column 4 lines 1 – 3, lines 6 – 19).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the system of Tiedemann with the determination method

of Corke for the purpose of providing an increase in system capacity as taught by

Corke.

Regarding Claims 14, 72, Tiedemann in view of Corke teaches all of the claimed limitations recited in Claims 13, 71. Tiedemann further teaches varying the second transmit power level of the mobile station on the second reverse link channel responsive to power control commands from the serving base station (Sections: 0047 – 0049, 0098). Corke further teaches varying the transmit power level if the channel gain does not meet the criterion (Column 4 lines 1 – 3, lines 6 – 19).

Regarding Claims 16, Tiedemann teaches all of the claimed limitations recited in Claims 10. Tiedemann does not teach determining if the first channel gain meets a first predetermined criterion; determining if the second channel gain meets a second predetermined criterion; and varying the transmit power level of the mobile station on the first reverse link channel if the first and second channel gains meet the first and second predetermined criterion respectively.

Corke teaches determining if a channel gain meets a predetermined criterion; and varying the transmit power level on the channel if the channel gain meets the predetermined criterion (Column 4 lines 1 – 3, lines 6 – 19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Tiedemann with the determination method of Corke for the purpose of providing an increase in system capacity as taught by Corke.

Regarding Claim 17, Tiedemann in view of Corke teaches all of the claimed limitations recited in Claim 16. Tiedemann further teaches varying the first transmit power level of the mobile station on the first reverse link channel responsive to power

control commands from at least one non-serving base station (Sections: 0047 – 0049,

0098). Corke further teaches varying the transmit power level if the channel gain does

not meet the first predetermined criterion (Column 4 lines 1 – 3, lines 6 – 19).

Regarding Claim 69, Tiedemann in view of Corke teaches all of the claimed

limitations recited in Claim 67. Tiedemann further teaches computing a second channel

gain of one of the first and second reverse link channels relative to a third reverse link

channel (Section 0049).

Regarding Claim 70, Tiedemann in view of Corke teaches all of the claimed

limitations recited in Claim 69. Corke further teaches determining if a channel gain

meets a predetermined criterion; and varying the transmit power level on the channel if

the channel gain meets the predetermined criterion (Column 4 lines 1 – 3, lines 6 – 19).

10.   Claims 41 – 46 and 48 – 51 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Tiedemann et al. (US 2005/0135320) in view of Hsu et al. (US

6,901,046) as applied to Claims 40, 47 above, and further in view of Corke et al. (US

6,728,218).

Regarding Claim 41, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 40. Tiedemann in view of Hsu does not teach comparing the

first channel gain to a predetermined minimum gain; and varying the transmit power

level of the mobile station on the reverse rate control channel if the first channel gain is

not less than the predetermined minimum gain.

Corke teaches comparing a channel gain to a predetermined minimum gain; and varying the transmit power level of on a channel if the channel gain is not less than the predetermined minimum gain (Column 4 lines 1 – 3, lines 6 – 19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Tiedemann in view of Hsu with the determination method of Corke for the purpose of providing an increase in system capacity as taught by Corke.

Regarding Claim 42, Tiedemann in view of Hsu and in further view of Corke teaches all of the claimed limitations recited in Claim 41. Tiedemann further teaches varying the first transmit power level of the mobile station on the first reverse link channel responsive to power control commands from at least one non-serving base station (Sections: 0047 – 0049, 0098). Hsu further teaches a reverse rate control channel (Column 1 lines 43 – 49). Corke further teaches varying the transmit power level if the channel gain is not less than the predetermined minimum gain (Column 4 lines 1 – 3, lines 6 – 19).

Regarding Claim 43, Tiedemann in view of Hsu and in further view of Corke teaches all of the claimed limitations recited in Claim 41. Tiedemann further teaches computing a second channel gain of one of the first and second reverse link channels relative to the reverse pilot channel (Section 0049). Hsu further teaches a reverse rate control channel (Column 1 lines 43 – 49).

Regarding Claim 44, Tiedemann in view of Hsu and in further view of Corke teaches all of the claimed limitations recited in Claim 43. Corke further teaches

comparing a channel gain to a normal gain; varying the transmit power level of the on

the channel if the gain is equal to the normal gain (Column 4 lines 1 – 3, lines 6 – 19);

and varying the transmit power level on the channel if the channel gain is greater than

the normal gain (Column 4 lines 1 – 3, lines 6 – 19).

Regarding Claim 45, Tiedemann in view of Hsu teaches all of the claimed

limitations recited in Claim 40. Tiedemann in view of Hsu does not teach comparing the

channel gain to a predetermined maximum gain; and varying the transmit power level of

the mobile station on the reverse traffic channel if the channel gain is more than the

predetermined maximum gain.

Corke teaches comparing a channel gain to a predetermined maximum gain; and

varying the transmit power level of on a channel if the channel gain is more than the

predetermined maximum gain (Column 4 lines 1 – 3, lines 6 – 19).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the system of Tiedemann in view of Hsu with the

determination method of Corke for the purpose of providing an increase in system

capacity as taught by Corke.

Regarding Claim 46, Tiedemann in view of Hsu and in further view of Corke

teaches all of the claimed limitations recited in Claim 45. Tiedemann further teaches

varying the transmit power level of the mobile station on the reverse traffic channel

responsive to power control commands from the serving base station (Sections: 0047 –

0049, 0098). Corke further teaches varying the transmit power level if the channel gain

is greater than the predetermined maximum gain (Column 4 lines 1 – 3, lines 6 – 19).

Regarding Claim 48, Tiedemann in view of Hsu teaches all of the claimed limitations recited in Claim 47. Tiedemann in view of Hsu does not teach comparing the channel gain to a predetermined maximum gain; and varying the transmit power level of the mobile station on the reverse rate control channel if the channel gain is not greater than the predetermined maximum gain.

Corke teaches comparing a channel gain to a predetermined maximum gain; and varying the transmit power level on a channel if the channel gain is not greater than the predetermined maximum gain (Column 4 lines 1 – 3, lines 6 – 19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Tiedemann in view of Hsu with the determination method of Corke for the purpose of providing an increase in system capacity as taught by Corke.

Regarding Claim 49, Tiedemann in view of Hsu and in further view of Corke teaches all of the claimed limitations recited in Claim 41. Tiedemann further teaches varying the transmit power level of the mobile station on the reverse link channel responsive to power control commands from at least one non-serving base station (Sections: 0047 – 0049, 0098). Hsu further teaches a reverse rate control channel (Column 1 lines 43 – 49). Corke further teaches varying the transmit power level if the channel gain is not greater than the predetermined maximum gain (Column 4 lines 1 – 3, lines 6 – 19).

Regarding Claim 50, Tiedemann in view of Hsu and in further view of Corke teaches all of the claimed limitations recited in Claim 49. Corke teaches comparing a

channel gain to a predetermined minimum gain; and varying the transmit power level of

on a channel if the channel gain is not less than the predetermined minimum gain

(Column 4 lines 1 – 3, lines 6 – 19).

Regarding Claim 51, Tiedemann in view of Hsu and in further view of Corke

teaches all of the claimed limitations recited in Claim 50. Tiedemann further teaches

varying the transmit power level of the mobile station on the reverse traffic channel

responsive to power control commands from the serving base station (Sections: 0047 –

0049, 0098). Corke further teaches varying the transmit power level if the channel gain

is less than the predetermined minimum gain (Column 4 lines 1 – 3, lines 6 – 19).

11.   Claims 18, 31, 73, and 85 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Tiedemann et al. (US 2005/0135320) in view of Chen et al. (US

2002/0165004).

Regarding Claims 18, 73, Tiedemann teaches all of the claimed limitations

recited in Claims 1, 57. Tiedemann further teaches varying a first transmit power level

of the mobile station on the first reverse link channel responsive to power control

commands from at least one non-serving base station (Sections: 0047 – 0048, 0098)

Tiedemann does not teach varying a first transmit power level of the mobile

station on the first reverse link channel responsive to power control commands from at

least one non-serving base station if the mobile station is in a discontinuous

transmission mode.

Chen teaches varying a transmit power level of the mobile station on a reverse

link channel responsive to power control commands from a base station if the mobile

station is in a discontinuous transmission mode (Section 0034 lines 1 – 7, Section 0108

lines 1 – 2).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the discontinuous transmission mode taught in Chen in the

mobile station of Tiedemann for the purpose of creating a mobile station that does not

transmit continuously thus enabling said mobile station to be more power efficient as

taught by Chen.

Regarding Claim 31, 85, Tiedemann teaches all of the claimed limitations recited

in Claim 25, 78. Tiedemann further teaches power controlling the reverse pilot channel

by a non-serving base station if the received power on the reverse pilot channel is

above a predetermined threshold at the non-serving base station (Sections: 0047 –

0048, 0098).

Tiedemann does not teach power controlling the reverse pilot channel by a non-

serving base station if the mobile station is in a discontinuous transmission mode.

Chen teaches power controlling the reverse pilot channel by a base station if

mobile station is in a discontinuous transmission mode (Section 0034 lines 1 – 7,

Section 0108 lines 1 – 2).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the discontinuous transmission mode taught in Chen in the

mobile station of Tiedemann for the purpose of creating a mobile station that does not

transmit continuously thus enabling said mobile station to be more power efficient as taught by Chen.

12.   Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedemann et al. (US 2005/0135320) in view of Hsu et al. (US 6,901,046) as applied to Claim 32 above, and further in view of Chen et al. (US 2002/0165004).

Regarding Claim 52, Tiedemann in view of Hsu teaches all of the claimed limitations recited in Claim 32. Tiedemann further teaches varying a transmit power level of the mobile station on the first reverse pilot channel responsive to power control commands from at least one non-serving base station (Sections: 0047 – 0048, 0098).

Tiedemann in view of Hsu does not teach varying a first transmit power level of the mobile station on the first reverse pilot channel responsive to power control commands from at least one non-serving base station if the mobile station is in a discontinuous transmission mode.

Chen teaches varying a transmit power level of the mobile station on a reverse link channel responsive to power control commands from a base station if the mobile station is in a discontinuous transmission mode (Section 0034 lines 1 – 7, Section 0108 lines 1 – 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the discontinuous transmission mode taught in Chen in the mobile station of Tiedemann in view of Hsu for the purpose of creating a mobile station

that does not transmit continuously thus enabling said mobile station to be more power efficient as taught by Chen.
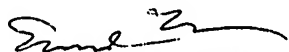
Conclusion

13.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Willenegger et al. (5,991,284).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S. Dean whose telephone number is 571-272-7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). **PLEASE NOTE**: Art Unit 2684 is now Division 2618.

Raymond S. Dean
April 13, 2006

EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600